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Francesca Pignagnoli

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1 RECORD OF ORAL HEARING

2  
3 UNITED STATES PATENT AND TRADEMARK OFFICE

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5  
6 BEFORE THE BOARD OF PATENT APPEALS  
7 AND INTERFERENCES

8  
9  
10 Ex parte FRANCESCA PIGNAGNOLI,  
11 PAOLO GOLINI,  
12 and EILEEN M. LANCASTER

13  
14  
15 Appeal 2009-001285  
16 Application 10/539,961  
17 Technology Center 1700

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19  
20 Oral Hearing Held: April 23, 2009

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24 Before CHUNG K. PAK, TERRY J. OWENS, and  
25 BEVERLY A. FRANKLIN, Administrative Patent Judges

26  
27 ON BEHALF OF THE APPELLANT:

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1 MS. BEAN: Calendar No. 52, Mr. Ashburg.

2 JUDGE PAK: Mr. Ashburg.

3 MR. ASHBURG: Yes. Good afternoon.

4 JUDGE PAK: Good afternoon. We have a court reporter here today.  
5 He's going to transcribe the entire hearing, and the resulting transcript will  
6 become part of the record.

7 MR. ASHBURG: Sure.

8 JUDGE PAK: And you may start anytime you wish. You've got 20  
9 minutes.

10 MR. ASHBURG: Okay. May it please the court, my name is Ray  
11 Ashburg. I'm an attorney with Dow Chemical, and I represent the  
12 Appellant, Mr. Francesca Pignagnoli.

13 There are two issues before the Board today.  
14 First is the combined teachings of Hickey and Chow do not disclose each  
15 and every element of our claimed invention, and the second issue is  
16 assuming that for the sake of argument that the Examiner has established a  
17 prima facie case of obviousness, we have -- the Applicant has shown that  
18 there are unexpected results, and however the Examiner has requested  
19 substantial showing, requested a higher standard of showing of unexpected  
20 results, clear and convincing, and her -- his position is not warranted.

21 With regard to the first issue, the, the claimed invention is a  
22 composition that requires three components. One of the components is a  
23 blown agent of formic acid, and the amount of that formic acid is from 1.5 to  
24 3.5 parts per 100 parts of the polyol. The reference one which is Hickey,  
25 and I want to bring that to your attention on column 16, lines 1 through 18,  
26 basically describes the combination of the different components, and

1 specifically on line 6 it says the amount of hydrocarbon blown agent based  
2 on the weight of all foaming ingredients is generally between 3 to 15 percent  
3 by weight and preferably 5 to 10 percent by weight. That's if we have the  
4 combination.

5 And if you go to the next paragraph, the weight of all blown agents in  
6 the resin is, is generally from about 5 to 35 parts per 100 parts of polyol and  
7 preferably from 10 to 30 percent. There is no explicit telling of how much  
8 formic acid you actually have in this composition of Hickey. But if you do  
9 the math, and you look at what it is in the first paragraph as far as the  
10 combination, and take that into account of how much of the second part is  
11 just the, the total amount of the blown agent is from 5 to 35 parts per 100 of  
12 the polyol and only 5 -- only 3 to 15 percent of that would be your  
13 hydrocarbon. So the remaining of that would be basically any other blown  
14 agents that they have listed in this Hickey basically prior art.

15 And assuming that 100 percent of that is formic acid at 15 percent of  
16 the, of the 15 percent of the 5 parts per, per 100, .75 percent of it is going to  
17 be hydrocarbon, and therefore your formic acid level would be 4.25 which is  
18 much higher than our extreme end of 3.5. At 10 percent of the 5 percent,  
19 which is the lower end, you have .5 percent of hydrocarbon, and therefore  
20 the remaining of the 5 percent would be -- the 5 parts would be 4.5 of formic  
21 acid. Again, it's way more than 3.5. The 5 percent of the, of the 5 parts per  
22 100 of the polyol, you will have .25 percent of the hydrocarbon, and then the  
23 remaining of that 5 parts would be 4.75 formic, formic acid which is again  
24 greater than 3.5. And if you have 3 percent of the 5 parts per 100, you will  
25 have .15 parts of the hydrocarbon and 4.85 of the formic acid. All of those

1 are based on the lower end of what's disclosed in the second paragraph of 5  
2 to 35 percent basically of, of all the blown agents.

3 Taking that into consideration, our range is from 1.5 to 3.5. Assuming  
4 Hickey and Chow combined together, Chow basically discloses the polyol.  
5 Doesn't say anything about the formic acid. Doesn't say anything about the,  
6 the ranges. Even you combine those, none of these two prior arts actually  
7 disclose anything between 1.5 to 3.5. In fact, their ranges are above that  
8 point, above the 3.5. The, the lowest is 4.25 formic acid.

9 So I've gone through this process. I've explained to the Examiner, but  
10 I don't seem to get a response that, okay, either my math is wrong, or please  
11 show me how you calculate basically the, the amount of formic acid based  
12 on Hickey that falls within that 1.5 to 3.5. I've gone beyond that. I assumed  
13 that the Examiner had established basically prima facie case of obviousness,  
14 and we have submitted declaration. We have shown comparative examples  
15 and then to show the substantial improvements based on our, on our  
16 expected results. But the response is you have to -- the showing -- the actual  
17 showing has to be -- not only it has to be substantial, it has to be a  
18 substantial showing of substantial improvements which is not the standard.  
19 Clear and convincing is not the standard of showing of an unexpected  
20 results. I'm not familiar with a case that actually requires a clear and  
21 convincing of unexpected results, and I'm not sure if the Examiner can  
22 support that.

23 JUDGE PAK: I think re Heyna (phonetic sp.) states that the old  
24 CCPA case --

25 MR. ASHBURG: I'm sorry?

1 JUDGE PAK: Old CCPA case In re Heyna states that the appellant  
2 has a burden of showing by clear and convincing evidence --

3 MR. ASHBURG: There is a related case --

4 JUDGE PAK: -- that their invention imparts unexpected results.

5 MR. ASHBURG: The only related case that I found is the -- did you  
6 say Lore (phonetic sp.)?

7 JUDGE PAK: What?

8 MR. ASHBURG: Did -- I'm sorry, what was it --

9 JUDGE OWENS: CCPA case In re Heyna.

10 MR. ASHBURG: Heyna. And again, I've looked at the In re Sony  
11 basically that says if there is a showing of unexpected results, if the, if the  
12 applicant states that, that the results are unexpected, there is a showing -- we  
13 have shown that through comparative data there is a declaration that the data  
14 is -- basically the results are unexpected. The Examiner is supposed to take  
15 that as unexpected unless there is contrary evidence to that. I don't see any  
16 contrary evidence. I haven't received any explanation of how we actually  
17 get this 1.5 to 3.5 from that Hickey. I've shown my math. I'm not getting a  
18 response of what is it -- how do, how, how does the Examiner look at this  
19 and come up with 1.5 to 3.5 and accept basically the conclusive statements  
20 that are made. It is shown in this paragraph. I've looked at the paragraph.  
21 I've looked at it from every different angle, but I do not see 1.5 to 3.5 being  
22 disclosed there. There are actually at least there's 4.25 even if you do the  
23 math based on how much of it is hydrocarbon, and you subtract basically the  
24 remaining aspects of it. Based on that combination disclosure, then you will  
25 see that the, that the least amount of formic acid present, assuming all of it is  
26 going to be formic acid, be 4.25.

1 JUDGE PAK: Any --

2 JUDGE FRANKLIN: At the top of page 5 of the, of the Answer, isn't  
3 it the Examiner's position that basically saying that determination of optimal  
4 values within a disclosed range is generally considered obvious? Isn't that  
5 how the Examiner handles that range issue?

6 MR. ASHBURG: Well, if you look at what Hickey says, it says --  
7 and you look at the number, and you do the math, you would view the  
8 hydrocarbon, and you look at the other side, well, the remaining is going to  
9 be what's left based on the formic acid, based on what the Examiner says.  
10 They're all outside of that range. If anything, the teaching is, is teaching  
11 away from what we're saying, what we're claiming. How could it be  
12 obvious? I'm not sure if the teaching is exactly more than what I'm asking,  
13 asking it to be. I'm asking it to be basically 1.5 to 3.5, and the, the closest  
14 that I have in the prior art, even if I go based on those teachings, is 4.25 and  
15 above.

16 JUDGE FRANKLIN: And then I have a question about your  
17 declaration evidence. Could you explain how it is commensurate in scope  
18 with your claim?

19 MR. ASHBURG: Actually, the --

20 JUDGE FRANKLIN: I guess we'd be looking at that appendix A that  
21 is attached to the declaration.

22 MR. ASHBURG: We've submitted additional -- there's an appendix.

23 JUDGE FRANKLIN: Right, that --

24 MR. ASHBURG: And you have example 3A, 3B, and 3C, and the  
25 amount of formic acid that we had basically from .4, 1.6 and 8.1, and if you  
26 go to the -- what we were trying to establish basically based on that was the

1 foam C without being outside the range and foam A being outside of the .5  
2 range.

3 JUDGE OWENS: Is that commensurate in scope with the claims?

4 MR. ASHBURG: I believe so. I mean I'm looking at the 1.6 which is  
5 within the range of 1.5 to 3.5, and when I talked to the Examiner he's -- he  
6 would be willing to give 1.5 to 2 but not 3.5. The reality, I don't have  
7 support for it. Otherwise, that would be fine as far as the coverage. I do not  
8 have explicit support for 1.5 to 2, whereas there is explicit support for 1.5 to  
9 3.5, and it's the lower ends of basically the, the formic acid that we're  
10 looking for.

11 JUDGE OWENS: Maybe the problem would be that the 3.5 is the  
12 closest to the prior art?

13 MR. ASHBURG: I'm sorry?

14 JUDGE OWENS: The 3.5 is the closest to the prior art?

15 MR. ASHBURG: The 3.5, you're absolutely correct. It is closest to  
16 the prior art, but the prior art if we, if we do the math, and we look at  
17 basically how -- and consider that to be an explicit teaching of what that  
18 prior art is teaching, obviously if it says basically X amount is going to be  
19 hydrocarbon, and the remaining is going to be basically our formic acid, that  
20 puts us outside of the range that we are saying, and looking at it from that  
21 perspective it actually teaches away from what the range is for formic acid  
22 that we do require.

23 JUDGE PAK: Thank you for coming. We will consider your  
24 argument.

25 Whereupon, the hearing concluded on at 2:55 p.m. on  
26 April 23, 2009.